International Energy Services Limited (IESL)
International Energy Services Limited (IESL)
Your Energy Service Provider of Choice

With engineering, technologies and project management, we safely and successfully deliver the best service solutions for our clients in the energy business.
We are present in 7 countries in Africa, Ghana, Mozambique, Angola, Gabon, Liberia, Equatorial Guinea and Nigeria with a staff strength of over 280 mostly engineers of different disciplines.

Our Principles and Values

**Integrity**: To Sustain a reputation for fairness, honesty, efficiency and trust in all our dealings.

**Collaboration**: working as a team to achieve shared goals.

**Innovation**: Generating new ideas and creative approaches to constantly improve our business processes.

**Client Satisfaction**: To be creative in meeting the evolving needs of our clients and constantly exceeding their expectations.

**Excellence**: Striving to meet and exceed clients’ expectation through superior performance.

**Diversity**: IESL respects personal, ethnic, gender, religious differences and values.

Our Mission

Achieve excellent quality of services, operate our business in an efficient, safe and innovative manner.
Create value for our shareholders, clients and employees, protect our clients’ rights to privacy and confidentiality.

Our Vision

Employing human and material resources for energy services delivery as a world class company with highest standard of efficiency and integrity.

Our Quality Policy

IESL shall execute its services in line with the requirements of ISO 9001:2008 to the utmost satisfaction of its customers, while ensuring continual improvement of its quality management system.
IESL Energy Sector
Focused On The Markets Of Tomorrow

Energy Products And Solutions – 5 Divisions

- Engineering Design Services
- Project Development & Operations
- Environmental & Waste Management Services
- Manpower Resource Management & Training

The operational structures and activities are optimized to best serve our well articulated business process system and flexibility to assemble and deploy best and the wealth of capability throughout the most appropriate team for each clients specific requirements.
IESL Energy Sector
Focused On The Markets Of Tomorrow

Operational Division

Engineering Design Division

- LIVING QUARTERS, REAL ESTATE & INFRASTRUCTURE
- ONSHORE/OFFSHORE PROJECTS (TOPSIDES & FACILITIES)
- SUBSEA & GEOTEchnICAL PROJECTS
- TURBO MACHINERY PROJECT DESIGN
IESL Engineering Portfolio

Integrated Solutions
• From start to finish, IESL offers a comprehensive range of design engineering services,
• Designed to meet our clients needs at every stage of the design process
• This translates into higher constructability, reliability and quality on every project

Onshore/ Offshore Project (Topside Facilities)

Conceptual Design → Feasibility Assessment → Basic Design → FEED → Detailed Engineering

Solutions
• Conceptual / Feasibility Studies,
• FEED and Detailed Engineering,
• Offshore Structure Installation Design,
• Platform Assessments and Upgrade
• Process Facilities & Skid Design

Solutions
• Electrical, Automation/Safety, Telecommunication Systems
• Installation, Commissioning and Testing Services
• Modifications and Upgrades Services
• Obsolescence Management and IT Security Solutions
• Plant Operation, Leasing/Vendor Warehouse Services

Solutions
• Civil Works Design and Specification Development
• Technical Documentation Derived from Engineering Drawings and Specifications, PFD, P&ID
• Training for Operators and Maintenance Staff

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IESL Engineering Portfolio

Integrated Solutions
- We provide the full spectrum of geotechnical services to help you understand and manage the ground risk associated with project developments onshore and offshore.
- We leverage our leading expertise to provide geotechnical solutions in urban areas and in remote locations

Subsea & Geotechnical Projects

Solutions
- Subsea Production Systems,
- Subsea Umbilical Riser and Flow line (SURF/URL/UFL), Flow Assurance Studies,
- Subsea Template Design
- Specification development,
- Pipeline Design,

Solutions
- Pipeline Related Facilities,
- Pump Station Design,
- Launchers / Receivers
- Marine Systems
- Control and Safety Systems
- Gas Compression Solutions

Solutions
- Technical Documentation Derived from Engineering Drawings and Specifications, PFD, P&ID
IESL Engineering Portfolio

Integrated Solutions
- Our formula for success lies in a customer oriented approach and delivering projects to the highest possible standards.
- From small 20-man Living Quarters (LQ) right through to a luxurious 250-man offshore hotel complex and an 874-man accommodation barge, our vast experience ensures that we are able to provide the highest possible standards and specification within the design brief.
- We operate a construction method which is safe, efficient and uses fewer simultaneous trades during the build process to ensure interface conformity from FEED through to installation and hook-up. Internal cabin modules are also utilized to reduce the onsite construction schedule during fit-out and services installation.

Offshore Accommodation and Living Quarters

Solutions
- Light and cost efficient weight design
- High specification and levels of completion
- Horizontal section construction methods
- Reduced risk of potential safety incidents
- Ergonomically designed living space
- State of the art recreation areas
- Single or double cabin modules with integrated wet rooms
- Cantilevered helideck option
- Long design life guarantee
- Blast and fire rating protection
IESL Engineering Portfolio

Integrated Solutions
We are experts in
- Design of all types of turbo machines: pumps, axial turbine and compressors, centrifugal compressors, radial turbines, fans (low speed-transonic).
- Computational fluid dynamics code development and analysis.
- We understand our clients needs thoroughly which comes only with experience.
- We offer superior project management skills, with one point of contact from concept to complete engineering solution

Turbo Machinery Project Design

Solutions
- centrifugal & axial compressor design
- radial & axial turbine design
- fan, expander & pump designs
- Computational Fluid Dynamics analysis
- finite element structural analysis
- field service problems in compressor/turbines
IESL Energy Sector
Focused On The Markets Of Tomorrow

Operational Division

Project Development & Operations

- Power & Renewable Energy
- Construction & Installation
- Project Management, Construction & Supervision
- Supply Chain Management

- Instrumentation & Control
- EPC: Gas Production, Pipelines & Storage
- Processing Solutions
IESL Project Development & Operations Portfolio

Process Packages
- Pipe spools assemblies, Subsea pipe spools and structures and Electrical packages
- Equipment handling mechanisms
- Pressure vessels
- EPC Pipeline Construction, dam & ports construction, road & bridges construction

Solutions & Systems
- Mechanical maintenance services
- Pressure (coded) welding
- General fabrication and Structural maintenance
- On-site installations and Process valve refurbishment

Construction & Installation Services

Solutions & Integrated Packages
Mechanical Maintenance Services,
Pressure (coded) Welding,
General fabrication and Structural maintenance

Operations related services
Technical operation of pipeline
Manage and execute the installation of welded process pipe and fittings onsite

- Process pipe installation: which can include the installation of associated mechanical equipment such as valves, pumps, and pressure vessels.
- Construction Engineering

Fabrication of pressure vessels for the Oil & Gas industry.
On-site installations and Process valve refurbishment
IESL Project Development & Operations Portfolio

Process Packages
- Engineering and Technical Services
- Electrical, Instrumentation, Telecom & Control Services
- Transportation and Storage Services

Solutions & Systems
- Liquefaction & Re-gasification
- Implementation of Software Solutions
- Water / Gas & Oil Separation Plant Solutions

Project Management, Construction & Supervision

Lifecycle Services: Performance Maintenance, Performance Enhancement (Installations & Upgrades), Service Programs (e.g. Long Term Program), Consulting and Asset Management

Solutions & Integrated Packages:

Operations related services
- Technical operation of pipeline
  - Planning, Scheduling and Performance Improving services

- Pipeline Design, Project Mgmt and Site Services
- Pipeline Security, HVAC
- FEED Studies, Safety Analysis
- SCADA Automation Safety, Instrument, IT Solutions

- Water and waste water treatment services, equipment supply and operations services – along the entire value chain
IESL Project Development & Operations Portfolio

Solutions & Systems
- IESL is your #1 Source for Oil & Gas Equipment and Services.
- IESL is a groundbreaking source for procuring and shipping high quality equipment to clients in the Energy Industry
- IESL acquires superior parts through established relationships with Original Equipment Manufacturers and offers quality oil and gas equipment, at an incredible value.

IESL offers Procurement Services:
- Oversee the whole buying and contract purchasing of equipments in the Energy Sector.
- Oversee the whole buying process for the installation and maintenance of new and existing wells and pipelines
- Oversee the contractual and commercial negotiations for installation and re-modification of platforms.

Our Turn key Procurement Services also includes:
- Commercial Contracts Management: We oversee the supply of the entire project and are accountable for the delivery of all services and materials to support projects.

IESL Equipment Procurement Life Cycle
- Identification of Need
- Manufacturer Identification
- Supplier Communication and Negotiation
- Logistics and Supply Management
- Additional Step - As required by Client
IESL Project Development & Operations Portfolio

Integrated Solutions
- Main Contractor Responsibility
- Turnkey Solutions incl. Civil works
- Fossil Power Generation: Wind, Coal Solar, Hydro and Bio-fuels

Solutions & Systems
- Traditional Business
- Customized & Field Proven
- End Customers & EPC

Power & Renewable Energy

Resources 至 Generation 至 Transmission 至 Distribution 至 Consumption

Power Generation
- Feasibility Studies
- Consultancy Services
- Engineering
  - Front End Engineering and Design
  - Detailed Engineering and Design

Transmission & Distribution
- Engineering
- Procurement
- Installation and Construction
- Project Monitoring and Management
- Network Maintenance, Reverse Engineering and after sales services

Power Consumption
- Energy Management and Metering Solution
- Power System Quality Improvement
- Procurement
- Power Quality Analysis and Reverse Engineering.

Renewable Resource Assessment and Consulting Solutions (Hybrid, Stand Alone And Backup).
- Planning, Design and Optimization Management
- Project Management, EPC, Operation and Maintenance Services
- Testing and Commissioning
- System Study and Analysis
- System Upgrading, Integration and Retrofits.
IESL Energy Sector
Newly Focused On The Markets Of Tomorrow

Operational Division

Environmental & Waste Management Services

Environmental Studies and Consultancy

Analytical Laboratory Services:
- Hydrocarbon Analysis, Metals, Nutrients and Non metals Analysis;
- Corrosion Management
- Water Analysis/Effluent Monitoring and Gas Emission Control
- Physical (pH, Conductivity, Alkalinity, etc) Characteristics Determination;

Environmental Studies and Consultancy:
- Environmental Permit Application Assistance
- Quality Management System (QMS)
- Environmental Studies – Baseline Studies, EIA, EER/PIA Studies
- Environmental Management System (EMS)
- Safety Management Systems (SMS)

Waste Management Services
- Waste collection operations
- Land disposal sites
- Waste to energy plants
- Beneficial landfill gas projects
- Recycling plants
- Environmental services
IESL Laboratory and QHSE Consultancy Portfolio

Process Packages
- Customized Process Solutions
- Specific Problem Resolution
- End Customer Driven

Solutions & Systems
- Traditional Business
- Customized & Field Proven
- End Customers & EPC

Laboratory and QHSE Consultancy Services

QHSE Consultancy
- Quality, Audit, Incident, Activity and Risk Management
- Quality Management System (QMS)/ISO 9001 Certification Consultancy
- Environmental Management Systems (EMS)/ISO 14001 Certification Consultancy
- Environmental Sensitivity Index Mapping
- Preparation of HSE-MS Manual
- Environmental Studies

Analytical Laboratory Services
- Water, Soil & Effluent Analysis and Well-Test
- Removal of Cutting Piles, Down-Hole Injection of Drill Cuttings
- Monitoring Systems & Instrumentation and Decommissioning
- Hydrocarbon Analysis & Geotechnical Survey and Analysis
- Bio-remediation and Waste Management
- Corrosion Management and Metals, Nutrients & Non-metal Analysis
- Air Quality Measurement and Water Analysis/Effluent Monitoring
- Chemical, Biological & Microbiological Analysis
IESL Waste Management Portfolio

Process Packages
- Cost-effective and Environmentally Sustainable Waste Management Solutions
- Customized Process Solutions
- Water Treatment Waste Solutions

Solutions & Systems
- Turnkey Solutions Incl. Civil Works
- Equipment Optimization And Maintenance
- Monitoring, Collection, Transport & Processing.

Waste Management Portfolio

- Planning & Design Of Waste Management
- Monitoring, Collection, Transport, Processing And Disposal Of Waste Materials
- Waste Collection Of Baled (Compacted)
- Baled Waste Up To 2500 KG Load Possible

- Geologic Disposal, And On-site And Interim Storage Requirements.
- Safe On-site Handling, Long-term Storage Of Used Materials;
- Integrated Waste Management Solution At National Scale
- Advanced Fuel Cycles, Used Fuel Transportation

- Integrity Management and Performance Evaluation Recovery.
- Repair & Reliability Management and Structural Monitoring
- Recycling and Waste Disposal,
- Refurbishment and Environmental Compliance.
Proceedings: Title Graphic

IESL Project Development & Operations Portfolio

Integrated Solutions:
• Water Treatment
• Waste Water Treatment
• Process Systems Solutions

Process Packages
• Analytical Services
• Audit & Consultancy Services
• Field Services

Solutions & Systems
• Membrane Elements
• Process Chemicals
• Water Treatment Chemicals

Water Management Portfolio

- Customer Training
- Field / Analytical / Audit Services
- Remote Monitoring And Diagnostics
- Advanced Water Re-use And Recycling Solutions
- Mobile Water Solutions

- Cooling Water And Boiler Systems
- Water Treatment and Water Process Systems
- Process Chemicals and Waste Water Recycling Services
- Membrane Elements, Cartridge Filters & Lab Equipments

- Separation Equipment
- Membrane And Filtration Technology
- Monitoring Solutions
- Analytical Instruments
- Specialty Chemicals
- Mobile Water Capabilities and Equipments
IESL Energy Sector
Focused On The Markets Of Tomorrow

Operational Division

Manpower Resource Management & Training Services

Manpower, Resourcing & Development

Technical Training

Integrated Solutions:
- Multiple Consultancy Services: including Technical, Economic and Strategic Services
- Main Consultant Responsibility: One Stop Shop: For services from conception to implementation
- Specific Problem Resolution and End Customer Driven
- Step by Step Reporting with Technical documentation
IESL Manpower, Resourcing and Development

**Recruitment Services**
- Technical & Non-Technical
- Permanent & Contracts
- Expatriates & Nationals

**Manpower Contract Administration**
- Work Permits: STR, TWP
- Resident Permits
- Expatriates Quota Processing
- Personnel Support

**Provision of Technical Personnel in areas covering:**
- Design Engineers (Mechanical, Electrical, Instrumentation, Process & Structural)
- Inspectors (NDT, QAQC, Coating, Painting etc)
- Drilling Personnel (Engineers & Supervisors)
- HSE Specialist
- Controls & Hardware Technicians/Engineers

**Provision of other administration support services:**
- Work Permits: STR, TWP
- Resident Permits
- Expatriates Quota Processing
- Meet & Greet Services
- Salaries Administration
- Personnel Support Services

**Provide highly skilled personnel in a wide range of roles including but not limited to:**
- Drilling & Well Operations
- Inspection & Verification
- Project Management
- Engineering Design
- QHSE professionals
- Gas & Power Specialist
IESL Technical Training Portfolio

Integrated Capacity Building Solutions
- Training
- Conferences
- Seminars

Training Packages
- General Technical Courses
- HSE related training
- Tailored Oil & Gas related courses
- IT/Telecoms
- Engineering Design Software courses

Technical Training Portfolio

Our proven training model is a robust framework for delivering excellence. This unique approach is comprised of the following phases:
- Research and business needs analysis
- In-depth consultation
- Programme construction and refinement
- Practical implementation
- Strategic evaluation

- We focus on solutions to business issues – this is outside of the scope of most training courses. We identify the skills, knowledge and tools you need and build our training solution around your desired outcomes
- Our tried and tested framework for analyzing business and training needs allows us to get to the very heart of your business development needs
- All solutions are designed with operational effectiveness as the backbone of the training. We ensure that the skills and knowledge gained in the classroom will have an immediate and profound impact when implemented in practice
- Our reputation, experience and commitment to our clients means you can be sure that every training intervention will be an outstanding success.
IESL Engineering: Recent Projects

ERHA NORTH 2
Project Title: Development of ERHA North
Client: ExxonMobil
Project duration: Ongoing
Project scope: IESL in collaboration with CAMERON (One Subsea), works as an indigenous Engineering Sub-contractor for the following services
- Detail Engineering Services
- Project Management and
- Office Facilities

ERHA North Phase 2 Project: Total Man hours of 45,690 has been estimated for this project. The scope of work includes the following:
- Manifold - Detailed Engineering
- Jumper – Final Drawing
- System Engineering – Technical Support
- Project Management – Resource Supply

TOTAL EGINA FPSO TOPSIDES
Project Title: TOTAL EGINA FPSO Topsides Development
Client: Total Upstream Nigeria Limited
Total Man hours: about 250,000

- IESL is one of the 3 leading Nigerian Engineering companies on this project.
- Totaling about 800,000 man hours of detailed engineering design for Topside 22 modules.
- IESL is undertaking 30% of the project with about 94 engineers.

ETAN FPSO FEED PROJECT
Project Title: ETAN Field Development
Client: Nigerian Agip Oil Company Limited
Main Contractor: BW Offshore
Project duration: January to March 2014
Total Man hours: 7,500
Project scope: The ETAN Field FPSO has a processing capacity of 60,000 BOPD. Its storage capacity ranges from 0.6 to 1 million barrels of processed oil.

Water Injection, Gas Treatment and Export capabilities was also included in the FPSO topside facilities.

The ETAN Field Development also includes water injection wells to maintain reservoir pressure.
IESL Engineering: Recent Projects

**OFON2 Detailed Engineering Design**
Total Nigeria Project, 150,000 Man Hours
• Engineering And Detailed Design For Topsides, Drain, Main, Mezzanine And Upper Decks, It Includes The Design And Engineering Of A New Central Processing Platform (OFP2) With:
  • Oil Treatment And New Export Pumps
  • Gas Compression Facilities
  • Gas Dehydration
  • Seawater/Produced Water Treatment And Injection Facilities
  • HP And LP Flare Systems
  • Multiphase Intrafield Flowlines
  • Gas Lift Pipelines & Utilities
  • Water Injection Pipelines & Gas Export Pipeline

**USAN FPSO Manual**
**Step 1**
• Production Of The Description Of The Facilities From Approved For Construction (AFC) Documents.
• Production Of The Operating Manual Drawings.
**Step 2**
• Update Of The Description Of The Facilities Carried Out In Step 1 With Final Documentation.
• Production And Updating Of The Operating Manual Drawings From Step 1 With Final Documentation Of Additional Material With Any Documents Not Available At Step 1

**Usan FPSO Detailed Engineering Design**
Total Nigeria Project Of 180,000 Man-hours Multi-discipline Projects Which Lasted For 12 Months. IESL Worked With Doris Engineering Of France And Hyundai Heavy Industries On This Project
• Engineering And Detailed Design For Helideck And Support
• PI Lay-down Area
• P4 And S6 Module.
IESL Engineering: Recent Projects

**Domestic Supply Obligation (DSO) Meren & Sonam Offshore project**
- The design and installation of offshore gas gathering and gas production facilities is for the purpose of providing a reliable and economic supply of gas to onshore processing facilities while at the same time reducing the amount of gas that is currently being flared as a byproduct of crude oil production.
- The DSO project is for 24 months and its being sponsored by Chevron Nigeria and IESL is the Engineering contractor and is working with Hyundai Heavy Industry who are the EPC contractor. IESL will fulfill over 300,000 Man-Hours (One of the highest in the industry).

**SONAM Gas Gathering Compression Platform (GGCP) EPCI:**
- 300 MMSCFD Capacity
- 9 Well Slots (Increased To 12 Slots)
- Well Testing Equipment
- Chemical Injection
- 2 X 100% Main Power Generation & 1 X 20T Platform Crane
- 1 Essential Power Generation Package & Utilities
- LQ With Helideck To Be Installed On Separate Jacket With Bridge Connection To NWP.

Feed Verification Findings Included In Feed Verification Report GGCP/NWP Riser Installation

**MEREN Gas Gathering Compression Platform (GGCP) EPCI:**
- 120 MMSCFD Capacity
- 2 X 50% Gas Compression Trains
- 2 X 100% Solar Centaur 40 Turbine Generator Sets
- 1 Essential Power Generation Package
- 1 X 40T Platform Crane
- Utilities
- Flare System Designed To Handle Flare Volumes Of Entire Meren 1 Complex (170 Mmscfd).
- Bridge Connected To Meren 1 Pp
IALE Engineering: Recent Projects

- AKPO FPSO Gas Recovery Unit – Basic Engineering
  - Multidiscipline Related Engineers
  - Piping
  - Instrumentation
  - Structural
    - 3-D model is constructed using Intergraph PDS software.

- AKPO FPSO Gas Recovery Unit – Detailed Engineering
  - HAZOP and HAZID, or update of existing.
  - Preliminary Risk Assessment.
  - Detailed Risk Analysis.
  - Risk Assessment And Alarp Mitigating Measures.
    - Process
    - Piping
    - Structural and Instrumentation

AKPO FPSO was a Basic and Detailed Engineering Project sponsored by Total Nigeria. This project was done with support from Doris Engineering. This project was for 3 months and IESL had a total of 12 Engineers of various discipline involved. IESL completed 2468 Man-Hours on this project.
IESL Engineering: Our Projects

AGBAMI FPSO DESIGN ENGINEERING SUPPORT SERVICES

**Project Title:** Agbami FPSO Design Engineering Support Services  
**Client:** Star Deep Water Petroleum Limited (Chevron Nigeria Limited)  
**Project duration:** February 2010 to February 2012  
**Project Executed:** Detailed Engineering Design for Pumps Installation on Closed Drain Sump Systems

**Project Title:** USAN Operating Manual Production  
**Client:** Total Upstream Nigeria Limited (TEPNG)  
**Project duration:** April 2010 to April 2010 (12months)  
**Total Man hours:** Lump Sum Project  
**Project Objectives:** Production of operating manuals to be used by operators.  
**Technical Partner:** Impact Conseil, France  
**Project Scope:** The description of the USAN facilities:
  • Floating Production Storage and Offloading unit (FPSO) with 25,000 tons topsides, 180 kbd processing capacity, 185 MMScf/d Gas re-injection capacity,  
  • Power Generation of 3 x 30Mw (ISO), 2 million barrels storage capacity and oil export offloading buoy;
  • Umbilical, Flow lines and Riser system (UFR) comprising of 63 km flow lines and 71 km Umbilicals  
  • Subsea Production System (SPS) made up of 8 Manifolds, 23 Producer wells, 9 Water injector wells and 10 Gas injector wells.  
  • The work will be concluded in two steps.
IESL Consultancy Services: Selected References

Nigerian Gas Company (NGC): (Subsidiary of Nigerian National Petroleum Corporation):
- Design of NGC Supervisory Control and Data Acquisition (SCADA) System:
  - Review existing facilities and determine areas requiring upgrade, replacement or integration for successful implementation of SCADA
  - Conceptual design of SCADA & associated telecoms facilities
- Develop Bill of Engineering Measurement and Evaluation (BEME) for EPIC
- Develop project implementation schedule for EPIC of SCADA Project
- Submission of tender documents for EPIC

Nigerian Gas Company (NGC): (AFAM (Rehab/Upgrade of Metering Station):
- This is a Brownfield Engineering and Technical Services Project.
- Equipment supply will be done by Aquamation
- Project Duration: 12-months
- The project involves
  1. Design supply, installation & commissioning of new process control pane to replace existing control console
  2. Replacement of the calorimeter with online gas chromatography for gas composition analysis
  3. Installation of 2- indirect water bath gas heaters;
  4. Upgrade of existing pneumatic pressure reducing valves to motorized operated valves;
  5. Supply/installation of 100-kva gas generator, among others

Nigerian National Petroleum Corporation (NNPC) Cost Engineering Division (CED):
- Capacity Building: Cost Estimating Training:
  1. Cost Estimating for Upstream Oil and Gas,
  2. Cost Estimating for Downstream Oil and Gas,
  3. Cost Estimating for Gas Processing Projects,
  4. Capital Budgeting and Cost Control, Project Planning and Scheduling
- Development of a Functional Cost Database:
  1. Development of a taxonomy
  2. Creation of an electronic catalog
IESL Renewable Projects: SOLAR & Power Projects

Selected References:
- Islamic Training Centre, Madalla, Niger State Project: Supply & Installation Of 48kva Solar Hybrid System
- Power Holding Company Of Nigeria, Abuja. Rural Electrification Of Janwuriya Communities In Kajuru LGA Of Kaduna State
- Electricity Commission Of Nigeria Establishment Of 1,000 Watt Solar/Wind Hybrid
- Electricity Pilot Project In Ido-sabo Community Fct, Abuja
- Volta River Authority (Ghana) Grid Extension Of 33kv Transmission And Distribution Line
- Tamale Teaching Hospital (Ghana) Sub-station Construction

Power and Renewable Energy:
- Design and installation of solar energy- Hybrid, stand-alone, for homes, offices, rural electrification, street lighting and other facilities
- Power rehabilitation of plants, transmission lines and distribution networks including substations
- Procurement of spare parts, switch gears, electrical panels, etc
- Engineering – Concept, FEED, Marinization, Marine Operations Support

Selected References:
- Japan International Cooperation Agency Rural Electrification Of Umuikoro/Opehi Communities In Imo State.
- Cross River State Government Supply & Installation Of Solar Powered Street Light At Obudu Ranch Resort, Calabar

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IESL Infrastructure Projects: Port Projects

IESL Capabilities range from: Engineering, Procurement and Construction (EPC) contract for the rehabilitation of the Port Complex to Contract Administration including Supervision/Construction of Civil Works and Monitoring Site Works.

IESL has been involved in rehabilitation quays walls, container terminals and other Port

These jobs include reinforcing capping beams, construction of heavy load pavement, corrosion resistance of sheet piles (for quays walls), procurement, etc.

Selected References:

- Nigerian Ports Authority: Design And Implementation Of Virtual Private Network (VPN) For Nigerian Ports Authority
- Nigerian Ports Authority: Supply, Installation And Commissioning Of Digital VHF Radio Communication System
- Nigerian Ports Authority: Provision Of Consultancy Services For Civil Engineering Projects For The 2012 Appropriation: Strengthening Of Container Terminal (LOT 1), Provision Of Comprehensive Water Network Design (LOT 2), Construction Of A Link Road To Snake Island (LOT 3)

Selected References:

- NNPC: EPC of Original Equipment Manufacturers (OEM) For The Design And Construction Of Some Marine Vessels: Pilot Cutters, Marine Tug Boats Etc
- Nigerian Ports Authority: Clearance Of Drainage System, Scarification Of Existing Asphaltic Concrete Wearing Course And Laying Of Double Courses Of Asphaltic Concrete.
- Nigerian Ports Authority: Refurbishment And Reinstallation Of 10nos Retrieved Buoys
IESL QHSE References:

**Environmental And Analytical Services: EPNL (Elf):**
- Sampling Of Sewage, Soil, Sediment And Water
- Measurement Of Air Quality,
- Meteorological Parameters
- Measurement, Physio-chemical And Microbiological Laboratory Analysis Of Samples
- Monthly Report Writing

**Environmental Baseline Survey Of The Contiguous Nigerian Continental Shelf: Ministry Of Petroleum Resources:**
- Hydrodynamics/Hydrography, Sediment,
- Analysis Of Samples, Fisheries Studies And Report Writing

**Environmental Impact Assessment Of Proposed Onipanu Dam Hydro-power Project, Oyo State. Fed. Min Of Power**
- Installation Of An Effluent Treatment Plant For A Cosmetic Product Factory – N.N Fems
- EIA Of OPL 291 - Addax Petroleum
- Gaseous Emission & Aqueous Discharge Monitoring At Kolo Creek District – SPDC
- Environmental, Quality, and Safety Auditing Of Oando Plc

**Environmental Impact Assessment Of Proposed 3D Seismic Survey In OPL 471:**
- Full Blown EIA Entailing Field Data Gathering, Stakeholder Engagement, Lab Analysis, Data Analysis, And Report Writing
Environmental Impact Assessment Of Challawa Dam Hydro-power Project, Kano State : Federal Ministry Of Power
• Dam Failure/Flood Risk Assessment
• Social Impact Assessment
• Sediment And Water Sampling & Water Profiling
• Air Quality & Noise Measurements
• Physico-chemical And Microbiological Laboratory Analysis Of Samples
• Report Writing

Environmental Baseline Study Of Ofon Phase II Project Casella Nigeria Limited EPNL Ofon Offshore, Nigeria

Aquatic Toxicity Bioassay of Initial Water Based Mud (WBM), Composite WBM, Composite WBM Cuttings : ExxonMobil
• 96hours Toxicity Testing of Water Based Mud using Paleamonetes Africanus and Desmocaris Trispinosa as Test Organisms as well as Reference Chemical.

Aquatic Toxicity Bioassay Of Ms/Tt/151 (Water Based Mud): Department of Petroleum Resources.

Environmental Impact Assessment Studies for OPL – 291:
• Full Blown EIA Entailing Field Data Gathering, Stakeholder Engagement, Lab Analysis, Data Analysis and Report Writing

• Soil & Water Sampling And Analysis
• Air Quality Monitoring
• Borehole Drilling
• Safety Audit
• Socio-economic Studies
• Report Writing

Health Impact Assessment of Wilbros Pipeline ROW Activities
• Measurement Of SOX, NOX, COX, CxHy, VOC, Particulates, Noise Level, And Other Metrological Parameters Data Interpretation
• Report Writing
• Public Forum
IESL Laboratory References:

IESL provides a comprehensive analytical laboratory service to organizations large and small. Our experts interpret the results into meaningful data.

Many of our experts are recognized as international authorities in their field. Through active participation in method development, collaborative studies and standards committees, IESL stands out at the forefront of measurement science in analysis.

We operate within a quality system accredited to ISO 9001:2008 and our analytical capabilities are underpinned by an extensive research programme that ensures continuous improvement to the services we offer.

**Routine Laboratory, Analysis at SPDC (SHELL), Bonny Terminal:**
- Laboratory Analysis Of Samples Of Water, Crude, Effluent, Lube Oil, Ballast Water, Emulsion, Line Debris, Stimulation Fluids

**Installation of an Effluent Treatment Plant for a Cosmetic Product Factory: N N FEMS, Lagos**
- Sample Discharge to Public Drains, Analyze Samples for Parameters of Interest Based on Relevant Regulatory Limits for Effluent Discharge
- Design Plant, Construct and Install Plant.
- Commission And Test-run

- IESL currently manages the Laboratories of Shell and Addax petroleum in Nigeria
- IESL has the best Laboratory for all testing in Nigeria
- We do full Hydrocarbon testing

**Biological monitoring of Effluent Discharge in OML 123: ADDAX Petroleum:**
- Sediment and Water Sampling & Water Profiling
- Toxicity Testing & Fish Tissue Analysis
- Physico-chemical and Microbiological Laboratory Analysis of Samples
- Report Writing
IESL Laboratory References:

Technical Assistance For Waste Management (Routine) Monitoring Services At Boskel Ltd Port-Harcourt APO/C 371/09 For Total Upstream Nigeria Limited
•Waste Segregation,
•Treatment /Management Process Monitoring,
•Documentation And Reporting

Technical Assistance For Environmental (Wkly) Monitoring Services (Sampling/Analysis) At AKPO FPSO OML 130 (180km Deep Offshore) APO/C 371/09
•Ambient Air Quality/ Flare Emissions Monitoring
•Fresh And Rainwater Monitoring
•Produced Water And Sewage Discharge Monitoring
•Recipient (Sea) Environment Monitoring and Reporting

Gas Pipeline Sampling And Analysis For All SPDC Gaslines In Both East And West Operation In Nigeria NG01002653
•Insitu Measurement of Gas line Dew Point, Temperature and Pressure
•Condensate Sampling And Analysis Of Sulphur Reducing Bacteria, Heavy Metal Analysis, Sulphate, Bicarbonate And Insitu Measurement Of Ph
Routine Laboratory Analysis At Spdc Production, Warri & Port Harcourt. H9120/PSE-CEM
•Laboratory Analysis of Samples: Potable/Effluent Waters, Mud/Cement, Table/Effluent, Deposits/Scales/Soil/Salts, Metals in Hydrocarbons, Stimulation Fluids

Flowlines Sampling /Analysis Area A, East (Rumuekpe, Nkpoku, Ahia Flowstation, Kolo Creek Manifold, Bonny Terminal, Kolo Creek Flowstation, Agbada Flowstation, Brass Creek Manifold, Aghoro Manifold, Forcados Terminal Flowstation, Rumuekpe Flowstation etc) EH6257
•Insitu Measurement Of Ph, Sulphate Reducing Bacteria, Hydrogen Sulphide & Dissolved Carbon Dioxide.
•Crude Water Sampling For Laboratory Analysis Of Heavy Metals.
•Report Writing
IESL Laboratory References:

Selected References:

• Corporate Laboratory Services for The Shell Petroleum Development of Nigeria Limited (SPDC) Production Chemistry Labs - Port Harcourt, Egbema, Forcados and Gbaran Ubie

• Effluent Monitoring and Environmental Services for Schlumberger Support Nigeria Limited

• Provision of Aqueous and Gaseous Compliance Monitoring Activities on Ebok Field (FSO & MOPU Facilities) Operation Services for Afren Resources Limited

• Chemical and Biological Analysis of Soil and Water Samples of Pre & Post Remediated and Oil Spill Sites for SPDC

• Provision of Laboratory Services in OML 123 for Addax Petroleum Development Nigeria Limited

• Field and Laboratory Analysis for Cameron Offshore Systems Nigeria Limited

• Technical Assistance for Environmental (Wkly) Monitoring Services (Sampling/Analysis) at AKPO FPSO OML 130 (180km Deep Offshore)

Technical Assistance for Waste Management (Routine) Monitoring Services at Boskel Ltd Port-Harcourt APO/C 371/09 for Total Upstream Nigeria Limited


The Conceptual Site Model (CSM) and Risk Based Management Plan Development For The Ejamah-Ebubu Spill Site
IESL Manpower References

Selected References:

- **Mobil Producing Nigeria**: Supply of Personnel for Drilling Support Services
- **SPDC**: Provision of QAQC Third Party Inspection Services
- **SNEPCO**: Supply of Inspectors for BONGA Phase II Hardware & Controls Inspections Services
- **CHEVRON Nigeria Ltd**: Provision of various design engineers for the DSO Project
- **SNEPCo**: Supply of Inspectors for Inspection & Verification Services Bonga North West Project

- **SPDC**: Provision of Personnel for CAD & Digital Mapping Services
- **Nigeria LNG**: Supply of personnel for various NLNG operations
- **SNEPCO**: Supply of Personnel for Real Estate Development: Project Management Services
- **Total Upstream Nigeria**: Provision of Expatriate Material Writers for the Akpo FPSO Project
IESL Technical Feasibility Studies:

US Trade and Development Agency: Feasibility Study: Nigeria Hydroelectric Generation Capacity:
DFID: Commercialization of River Basin Development Facilities
• detailed investment appraisal/due diligence of West African Oilfield Services (WAOS) and Cicco Holdings Limited to enable Pan marine Investment Limited take a decision on its acquisition.

Nigerian Federal Ministry of Transport:
• Feasibility Study/Consultancy for the Standard Gauge New Rail line Eganyi- Lokoja-Abaji- Abuja(IDU)
• Consultancy: Establish Technical, Economical and Financial viability of implementing the identified project as PPP project through the generation of an Outline Buisness Case (OBC) in accordance with Nigeria’s National PPP policy

• CAMAC (Allied Energy Nigeria) Feasibility Project: Comparism of cost and profitability alternatives for bringing natural gas from the Oyo field to buyers: Selection of appropriate for the delivery method
  1. Pipeline
  2. LNG tanker
  3. CNG tanker,

CAMAC (Allied Energy Nigeria) Feasibility Study: Impact of different power generation methods, potential revenue from clean development mechanism (CDM) registration.
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